# MEMORANDUN an ARCADIS company

To: Craig Hunt, North Coast RWQCB

> Denise Tsuji, DTSC Ryan Miya, DTSC

Nancy Atkinson, City of Fort Bragg

Judy Nedoff, BBL From:

Bridgette DeShields, BBL

Re: Summary of Concrete Retrieval Activities

and Sample Results, G-P Fort Bragg

08/31/2006

Date:

Linda Ruffing, City of Fort Bragg cc:

Julie Raming, Georgia-Pacific Melodie Ruse, Georgia-Pacific

Doug Heitmeyer, Georgia-Pacific Paul Johnson, Georgia-Pacific

Carol Stephens, Georgia-Pacific

Michael Acton, AME Gary Cameron, BBL Scot Lewis, BBLES

Stephen Levesque, Campbell Timberland Management Matt Hillyard, Geomatrix

This memo presents a summary of activities related to concrete moved from the former Georgia-Pacific (G-P) mill site in Fort Bragg, CA to five locations on land managed by Campbell Timberland Management (CTM) in the vicinity of Fort Bragg. To summarize previous communications, 13 dump truck loads of concrete were moved from the G-P site on July 24 and 25, 2006 to block access to trails and roads that were being used by trespassers into the forest land. Most of the material had been removed during the foundation removal project this summer at the G-P mill site, plus one load of pier blocks from the dry kiln loading docks that had been removed in 2005 and stored at the site. The attached map shows the locations where the concrete was taken on CTM managed land. Photographs from each location both before and after concrete was retrieved are attached. All of the material was retrieved on Thursday, August 10, 2006 and stockpiled separately at the site (a photo of the stockpile is also attached). The total volume of the pile is fairly small (approximately 75 cubic yards).

One 4-point composite sample was collected on August 10, 2006 and analyzed by Curtis & Tompkins Laboratory in Berkeley for the following: total petroleum hydrocarbons (TPH)-diesel (EPA 8015M/TPHCWG), TPH-motor oil (EPA 8015M/TPHCWG), polycyclic aromatic hydrocarbons (PAHs), pentachlorophenol and tetrachlorophenol (EPA 8270C), and California Assessment Manual (CAM) metals (EPA 6010B/7471), consistent with analytical methods used for other concrete and soil samples collected at the site. The analyte suites were selected based on the testing that was done on soil samples collected from beneath foundations that may have been included in the concrete that was taken offsite, but volatile chemicals (TPH-gasoline and volatile organic chemicals) were not included, due to the exposure of the concrete to the open air for an extended period. These buildings include the Sawmill, the Chipper Building, the Water Supply Switch Building, and the Fuel Barn (mainly composed of walls). Foundations from two

<sup>1</sup> At the Little Valley location, concrete was originally in three places, but was consolidated to one place before August 9. Some cleanup was done at all three, and photographs of all three places are shown.

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other buildings (Dewatering Slabs and the Chip Truck Dump) had been removed prior to July 24. Concrete from the Dewatering Slabs was stockpiled separately in the concrete stockpile area, and none was transported offsite, as reported by Paul Johnson of G-P. Concrete from the Chip Truck Dump was stained; thus, it was stockpiled in the soil storage building and was not in the area from which concrete was taken offsite.

Analytical results were reported by Curtis & Tompkins laboratory to BBL on August 21, 2006. Results indicate that no PAHs, pentachlorophenol, or tetrachlorophenol were detected above the reporting limits (67 micrograms per kilogram ( $\mu$ g/kg) for PAHs, 340  $\mu$ g/kg for tetrachlorophenol, and 670  $\mu$ g/kg for pentachlorophenol). Several metals were detected, but all are within the range of typical background concentrations in California soils (Bradford et al., 1996).

The only organic analytes detected were TPH-diesel (C16-C24 range) at 61 mg/kg and TPH-motor oil (C24- C36 range) at 290 mg/kg, both below screening levels (see summary table). The lighter carbon ranges for TPH-diesel (C10-C12 and C12-C16) were not detected.

Laboratory notes on the C16-C24 range hydrocarbons indicate that heavier hydrocarbons contributed to the quantitation and that the chromatographic pattern did not match the standard. These notes mean that the hydrocarbons detected in the sample are likely associated with a heavier TPH mixture than diesel, such as a fuel oil or motor oil. Review of the quality control data indicates that the data are of acceptable quality for their intended use.

A summary table of detected constituents is attached, as well as the full laboratory report.

Please contact Judy Nedoff of BBL with any questions or concerns regarding the retrieval and testing of the concrete (707-338-0708).

JN/jn

#### REFERENCES

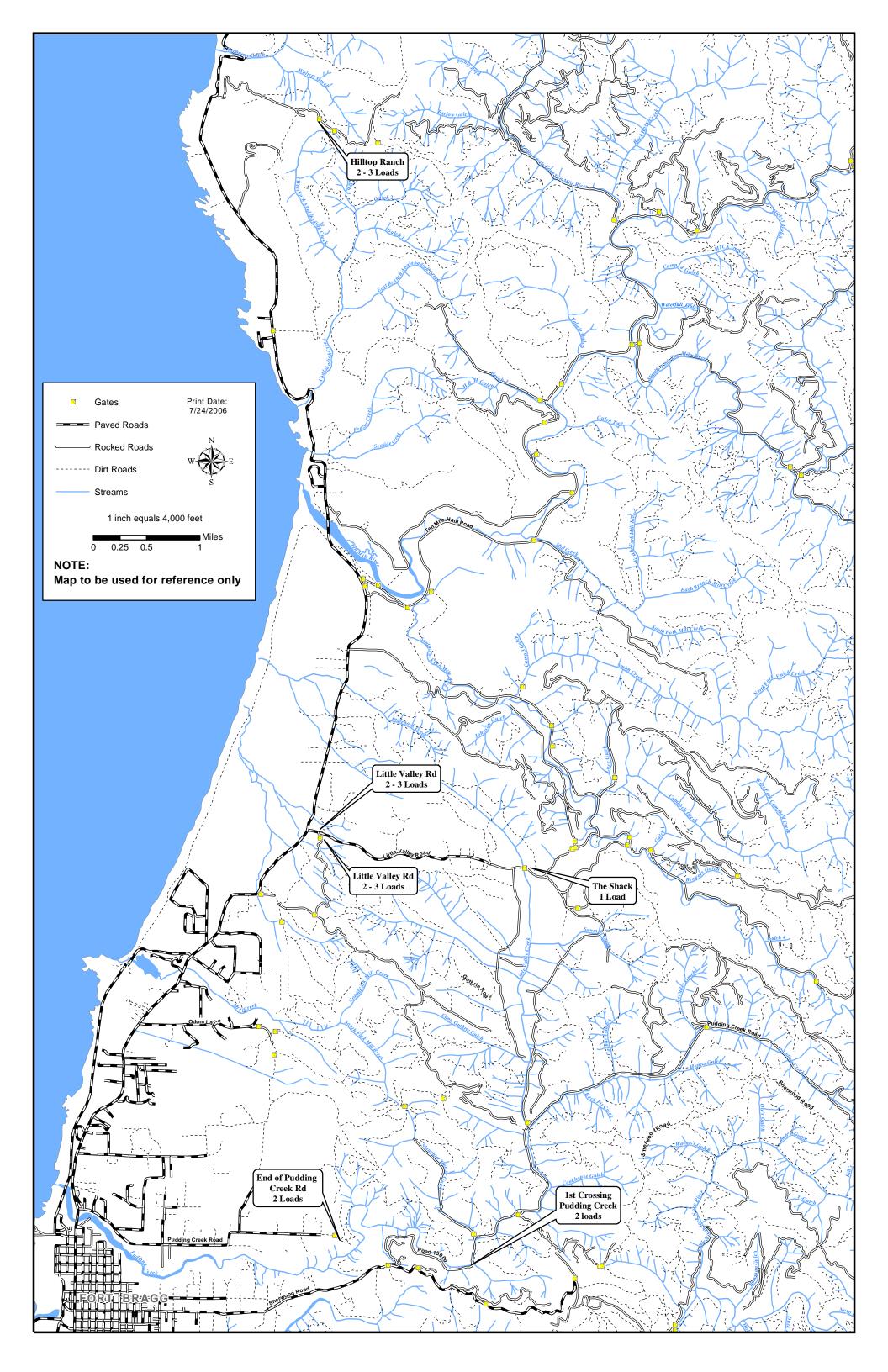
Bradford, G.R., A.C. Chang, A.L. Page, D. Bakhtar, J.A. Frampton, and H. Wright. 1996. Background Concentrations of Trace and Major Elements in California Soils. Kearney Foundation of Soil Science, Division of Agriculture and Natural Resources, University of California. March.

OEHHA (Office of Environmental and Human Health Assessment). 2005. Human-Exposure-Based Screening Numbers Developed to Aid Estimation of Cleanup Costs for Contaminated Soil. Integrated Risk Assessment Section, Office of Environmental Health Hazard Assessment, California Environmental Protection Agency. January 2005 Revision.

Tetra Tech, Inc. 2006. Revised Draft Development and Application of Risk-Based Screening Criteria. Georgia-Pacific Wood Products Manufacturing Facility, Fort Bragg, California. June.

#### Attachments:

Map of Offsite Locations where Concrete was Transported Photographs Detected Constituents in Concrete Sample from Georgia-Pacific Fort Bragg (Table) Laboratory Report from Curtis & Tompkins



## Retrieved Concrete – Stockpile



## 1<sup>st</sup> Crossing Pudding Creek (from back) 8/9/06



## 1<sup>st</sup> Crossing Pudding Creek (from road) - After



### End of Pudding Creek Rd – 8-9-06



## End of Pudding Creek Road – After



## Little Valley Road – Final Concrete Area 8/9/06



## Little Valley Road Final Concrete Area – After



### Little Valley Rd (S side) – Temporary Concrete Area – 8/9/06



### Little Valley Road (S side) – Temporary Concrete Area – After



## Little Valley Road (N side) – Temporary Concrete Area 8/9/06



### Little Valley Road (N side) – Temporary Concrete Area – After



## The Shack 1 8/9/06



### The Shack 1 – After



#### The Shack 2 8/9/06



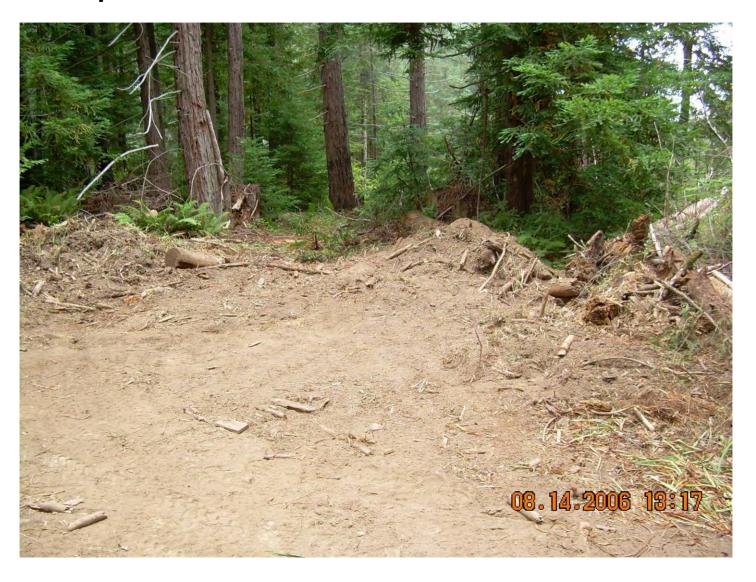
#### The Shack 2 – After



## Hilltop Ranch Rd – Outside Gate 8/9/06



## Hilltop Ranch Rd – Outside Gate – After



#### Hilltop Ranch Rd – Area 1 Inside 8/9/06



#### Hilltop Ranch Rd – Area 1 Inside – After



#### Hilltop Ranch Rd – Area 2 Inside 8/9/06



## Hilltop Ranch Rd – Inside Area 2 – After



#### Results of Concrete Sample from Georgia-Pacific Fort Bragg

Sample ID: RET1-COMP

			Reporting			
<b>Detected Analytes</b>	Units	Result	Limit	Lab Notes	RBSC	CHHSL
Diesel C16-C24	mg/kg	61	1.0	ΗΥ	1819	NE
Motor Oil C24-C36	mg/kg	290	5.0		1819	NE
Arsenic	mg/kg	5.9	0.25		0.1 <sup>a</sup>	0.07 <sup>a</sup>
Barium	mg/kg	130	0.25		1245	5200
Beryllium	mg/kg	0.33	0.25		152	150
Chromium	mg/kg	21	0.25		43,836	100,000 <sup>b</sup>
Cobalt	mg/kg	5.0	0.25		858	660
Copper	mg/kg	16	0.25		3,040	3,000
Lead	mg/kg	4.7	0.25		255	150
Mercury	mg/kg	0.088	0.020		23	18
Molybdenum	mg/kg	0.53	0.25		14	380
Nickel	mg/kg	20	0.25		185	1,600
Vanadium	mg/kg	37	0.25		203	530
Zinc	mg/kg	42	1.0		1925	23,000

mg/kg = milligrams per kilogram

RBSC = Risk-based screening concentrations for G-P Fort Bragg site (Tetra Tech, Inc. 2006)

CHHSL = California Human Health Screening Level (OEHHA, 2005)

NE = Not established

Note: all other analytes (polycyclic aromatic hydrocarbons (PAHs), pentachlorophenol and tetrachlorophenol, and the remainder of the California Assessment Manual (CAM) metals) were non-detect. Full lab reports are attached.

H = Heavier hydrocarbons contributed to the quantitation

Y = Sample exhibits chromatographic pattern which does not resemble standard

<sup>&</sup>lt;sup>a</sup> Background levels for arsenic in California range from 0.6 to 11 mg/kg (Bradford et al., 1996)

<sup>&</sup>lt;sup>b</sup> CHHSL for Chromium III



	Total Extra	ctable Hydrocar	rbons	
Lab #:	188713	Location:	Georia-Pacific	
Client:	Blasland, Bouck & Lee	Prep:	EPA 3550B	
Project#:	66049.009	Analysis:	EPA 8015B	
Field ID:	RET1-COMP	Batch#:	116551	
Units:	mg/Kg	Sampled:	08/11/06	
Basis:	as received	Received:	08/12/06	
Diln Fac:	1.000	Prepared:	08/18/06	

Type: SAMPLE Analyzed: 08/20/06
Lab ID: 188713-005 Cleanup Method: EPA 3630C

Matrix: Miscell.

Analyte	Result	RL	
Diesel C10-C12	ND	1.0	
Diesel C12-C16	ND	1.0	
Diesel C16-C24	61 H Y	1.0	
Motor Oil C24-C36	290	5.0	

Surrogate	%REC	Limits
Hexacosane	95	48-130

Type: BLANK Analyzed: 08/19/06 Lab ID: QC352483 Cleanup Method: EPA 3630C

Matrix: Soil

Analyte	Result	RL	
Diesel C10-C12	ND	1.0	
Diesel C12-C16	ND	1.0	
Diesel C16-C24	ND	1.0	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	Limits
Hexacosane	114	48-130

ND= Not Detected

RL= Reporting Limit

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H= Heavier hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard



	Total Extra	ctable Hydrocaı	rbons
Lab #:	188713	Location:	Georia-Pacific
Client:	Blasland, Bouck & Lee	Prep:	EPA 3550B
Project#:	66049.009	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC352484	Batch#:	116551
Matrix:	Soil	Prepared:	08/18/06
Units:	mg/Kg	Analyzed:	08/19/06
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.26	55.47	110	59-133

Surrogate	%REC	Limits
Hexacosane	110	48-130

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Total Extractable Hydrocarbons					
Lab #:	188713	Location:	Georia-Pacific		
Client:	Blasland, Bouck & Lee	Prep:	EPA 3550B		
Project#:	66049.009	Analysis:	EPA 8015B		
Field ID:	ZZZZZZZZZZ	Batch#:	116551		
MSS Lab ID:	188655-014	Sampled:	08/08/06		
Matrix:	Soil	Received:	08/10/06		
Units:	mg/Kg	Prepared:	08/18/06		
Basis:	as received	Analyzed:	08/19/06		
Diln Fac:	1.000				

Type: MS Cleanup Method: EPA 3630C

Lab ID: QC352485

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	34.46	49.98	68.14	67	37-153

Surrogate	%REC	Limits
Hexacosane	88	48-130

Type: MSD Cleanup Method: EPA 3630C

Lab ID: QC352486

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	50.30	82.32	95	37-153	18	43

Surro
cosane



Semivolatile Organics by GC/MS					
Lab #:	188713	Location:	Georia-Pacific		
Client:	Blasland, Bouck & Lee	Prep:	EPA 3550B		
Project#:	66049.009	Analysis:	EPA 8270C		
Field ID:	RET1-COMP	Batch#:	116414		
Lab ID:	188713-005	Sampled:	08/11/06		
Matrix:	Miscell.	Received:	08/12/06		
Units:	ug/Kg	Prepared:	08/15/06		
Basis:	as received	Analyzed:	08/17/06		
Diln Fac:	10.00				

Analyte	Result	RL	MDL
Naphthalene	ND	670	340
2-Methylnaphthalene	ND	670	390
Acenaphthylene	ND	670	220
Acenaphthene	ND	670	320
Fluorene	ND	670	310
Pentachlorophenol	ND	6,700	
Phenanthrene	ND	670	320
Anthracene	ND	670	210
Fluoranthene	ND	670	320
Pyrene	ND	670	340
Benzo(a)anthracene	ND	670	280
Chrysene	ND	670	270
Benzo(b)fluoranthene	ND	670	240
Benzo(k)fluoranthene	ND	670	270
Benzo(a)pyrene	ND	670	210
Indeno(1,2,3-cd)pyrene	ND	670	290
Dibenz(a,h)anthracene	ND	670	270
Benzo(g,h,i)perylene	ND	670	260
2,3,4,6-Tetrachlorophenol	ND	3,400	

Surrogate	%REC	Limits
2-Fluorophenol	DO	38-120
Phenol-d5	DO	36-120
2,4,6-Tribromophenol	DO	30-120
Nitrobenzene-d5	DO	46-120
2-Fluorobiphenyl	DO	49-120
Terphenyl-d14	DO	36-120

DO= Diluted Out

ND= Not Detected

RL= Reporting Limit

MDL= Method Detection Limit

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Semivolatile Organics by GC/MS					
Lab #:	188713	Location:	Georia-Pacific		
Client:	Blasland, Bouck & Lee	Prep:	EPA 3550B		
Project#:	66049.009	Analysis:	EPA 8270C		
Type:	BLANK	Diln Fac:	1.000		
Lab ID:	QC351920	Batch#:	116414		
Matrix:	Soil	Prepared:	08/15/06		
Units:	ug/Kg	Analyzed:	08/17/06		
Basis:	as received				

Analyte	Result	RL	MDL
Naphthalene	ND	67	8.0
2-Methylnaphthalene	ND	67	12
Acenaphthylene	ND	67	11
Acenaphthene	ND	67	13
Fluorene	ND	67	14
Pentachlorophenol	ND	670	
Phenanthrene	ND	67	12
Anthracene	ND	67	11
Fluoranthene	ND	67	13
Pyrene	ND	67	14
Benzo(a)anthracene	ND	67	9.9
Chrysene	ND	67	13
Benzo(b)fluoranthene	ND	67	11
Benzo(k)fluoranthene	ND	67	14
Benzo(a)pyrene	ND	67	10
Indeno(1,2,3-cd)pyrene	ND	67	10
Dibenz(a,h)anthracene	ND	67	8.5
Benzo(g,h,i)perylene	ND	67	11
2,3,4,6-Tetrachlorophenol	ND	340	

Surrogate	%REC	Limits	
2-Fluorophenol	75	38-120	
Phenol-d5	76	36-120	
2,4,6-Tribromophenol	48	30-120	
Nitrobenzene-d5	76	46-120	
2-Fluorobiphenyl	87	49-120	
Terphenyl-d14	86	36-120	

ND= Not Detected

RL= Reporting Limit

MDL= Method Detection Limit

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Semivolatile Organics by GC/MS						
Lab #:	188713	Location:	Georia-Pacific			
Client:	Blasland, Bouck & Lee	Prep:	EPA 3550B			
Project#:	66049.009	Analysis:	EPA 8270C			
Type:	LCS	Diln Fac:	1.000			
Lab ID:	QC351921	Batch#:	116414			
Matrix:	Soil	Prepared:	08/15/06			
Units:	ug/Kg	Analyzed:	08/17/06			
Basis:	as received					

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	1,681	1,383	82	50-120
Pentachlorophenol	3,362	2,123	63	23-120
Pyrene	1,681	1,568	93	48-120

Surrogate	%REC	Limits	
2-Fluorophenol	74	38-120	
Phenol-d5	75	36-120	
2,4,6-Tribromophenol	82	30-120	
Nitrobenzene-d5	78	46-120	
2-Fluorobiphenyl	93	49-120	
Terphenyl-d14	90	36-120	

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	Semivolatile Organics by GC/MS						
Lab #:	188713	Location:	Georia-Pacific				
Client:	Blasland, Bouck & Lee	Prep:	EPA 3550B				
Project#:	66049.009	Analysis:	EPA 8270C				
Field ID:	ZZZZZZZZZ	Batch#:	116414				
MSS Lab ID:	188742-007	Sampled:	08/14/06				
Matrix:	Soil	Received:	08/15/06				
Units:	ug/Kg	Prepared:	08/15/06				
Basis:	as received	Analyzed:	08/17/06				
Diln Fac:	1.000						

Type: MS Lab ID: QC351922

Analyte	MSS Result	Spiked	Result	%REC	Limits
Acenaphthene	<13.14	1,676	1,418	85	47-120
Pentachlorophenol	<73.68	3,352	1,915	57	22-120
Pyrene	58.80	1,676	1,622	93	41-126

Surrogate	%REC	Limits
2-Fluorophenol	76	38-120
Phenol-d5	78	36-120
2,4,6-Tribromophenol	74	30-120
Nitrobenzene-d5	80	46-120
2-Fluorobiphenyl	94	49-120
Terphenyl-d14	90	36-120

Type: MSD Lab ID: QC351923

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	1,675	1,292	77	47-120	9	26
Pentachlorophenol	3,350	1,265	38	22-120	41	44
Pyrene	1,675	1,475	85	41-126	9	33

Surrogate	%REC	Limits	
2-Fluorophenol	71	38-120	
Phenol-d5	73	36-120	
2,4,6-Tribromophenol	67	30-120	
Nitrobenzene-d5	72	46-120	
2-Fluorobiphenyl	86	49-120	
Terphenyl-d14	81	36-120	



California Title 26 Metals				
Lab #:	188713	Project#:	66049.009	
Client:	Blasland, Bouck & Lee	Location:	Georia-Pacific	
Field ID:	RET1-COMP	Diln Fac:	1.000	
Lab ID:	188713-005	Sampled:	08/11/06	
Matrix:	Miscell.	Received:	08/12/06	
Units:	mg/Kg	Prepared:	08/16/06	
Basis:	as received	Analyzed:	08/16/06	

Analyte	Result	RL	Batch# Prep	Analysis
Antimony	ND	0.25	116416 EPA 3050B	EPA 6010B
Arsenic	5.9	0.25	116416 EPA 3050B	EPA 6010B
Barium	130	0.25	116416 EPA 3050B	EPA 6010B
Beryllium	0.33	0.25	116416 EPA 3050B	EPA 6010B
Cadmium	ND	0.25	116416 EPA 3050B	EPA 6010B
Chromium	21	0.25	116416 EPA 3050B	EPA 6010B
Cobalt	5.0	0.25	116416 EPA 3050B	EPA 6010B
Copper	16	0.25	116416 EPA 3050B	EPA 6010B
Lead	4.7	0.25	116416 EPA 3050B	EPA 6010B
Mercury	0.088	0.020	116450 METHOD	EPA 7471A
Molybdenum	0.53	0.25	116416 EPA 3050B	EPA 6010B
Nickel	20	0.25	116416 EPA 3050B	EPA 6010B
Selenium	ND	0.25	116416 EPA 3050B	EPA 6010B
Silver	ND	0.25	116416 EPA 3050B	EPA 6010B
Thallium	ND	0.25	116416 EPA 3050B	EPA 6010B
Vanadium	37	0.25	116416 EPA 3050B	EPA 6010B
Zinc	42	1.0	116416 EPA 3050B	EPA 6010B

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	California	a Title 26 Meta	ıls	
Lab #:	188713	Location:	Georia-Pacific	
Client:	Blasland, Bouck & Lee	Prep:	EPA 3050B	
Project#:	66049.009	Analysis:	EPA 6010B	
Type:	BLANK	Diln Fac:	1.000	
Lab ID:	QC351932	Batch#:	116416	
Matrix:	Soil	Prepared:	08/16/06	
Units:	mg/Kg	Analyzed:	08/16/06	
Basis:	as received			

Analyte	Result	RL	
Antimony	ND	0.25	
Arsenic	ND	0.25	
Barium	ND	0.25	
Beryllium	ND	0.25	
Cadmium	ND	0.25	
Chromium	ND	0.25	
Cobalt	ND	0.25	
Copper	ND	0.25	
Lead	ND	0.25	
Molybdenum	ND	0.25	
Nickel	ND	0.25	
Selenium	ND	0.25	
Silver	ND	0.25	
Thallium	ND	0.25	
Vanadium	ND	0.25	
Zinc	ND	1.0	

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	California	Title 26 Meta	ls	
Lab #: Client: Project#:	188713 Blasland, Bouck & Lee 66049.009	Location: Prep: Analysis:	Georia-Pacific EPA 3050B EPA 6010B	
Matrix: Units: Basis: Diln Fac:	Soil mg/Kg as received 1.000	Batch#: Prepared: Analyzed:	116416 08/16/06 08/16/06	

Type: BS Lab ID: QC351933

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	102.1	102	80-120
Arsenic	50.00	53.54	107	80-120
Barium	100.0	105.1	105	80-120
Beryllium	2.500	2.757	110	80-120
Cadmium	10.00	11.01	110	80-120
Chromium	100.0	105.6	106	80-120
Cobalt	25.00	26.17	105	80-120
Copper	12.50	12.98	104	80-120
Lead	100.0	105.8	106	80-120
Molybdenum	20.00	22.81	114	80-120
Nickel	25.00	26.41	106	80-120
Selenium	50.00	52.55	105	80-120
Silver	10.00	10.04	100	80-120
Thallium	50.00	53.13	106	80-120
Vanadium	25.00	26.58	106	80-120
Zinc	25.00	27.13	109	80-120

Type: BSD Lab ID: QC351934

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	98.32	98	80-120	4	20
Arsenic	50.00	50.73	101	80-120	5	20
Barium	100.0	102.3	102	80-120	3	20
Beryllium	2.500	2.681	107	80-120	3	20
Cadmium	10.00	10.39	104	80-120	6	20
Chromium	100.0	102.7	103	80-120	3	20
Cobalt	25.00	24.80	99	80-120	5	20
Copper	12.50	12.64	101	80-120	3	20
Lead	100.0	99.71	100	80-120	6	20
Molybdenum	20.00	21.73	109	80-120	5	20
Nickel	25.00	24.89	100	80-120	6	20
Selenium	50.00	49.85	100	80-120	5	20
Silver	10.00	9.542	95	80-120	5	20
Thallium	50.00	50.42	101	80-120	5	20
Vanadium	25.00	25.14	101	80-120	6	20
Zinc	25.00	25.59	102	80-120	6	20



	California Title 26 Metals				
Lab #:	188713	Location:	Georia-Pacific		
Client:	Blasland, Bouck & Lee	Prep:	EPA 3050B		
Project#:	66049.009	Analysis:	EPA 6010B		
Field ID:	ZZZZZZZZZZ	Batch#:	116416		
MSS Lab ID:	188753-001	Sampled:	08/15/06		
Matrix:	Soil	Received:	08/15/06		
Units:	mg/Kg	Prepared:	08/16/06		
Basis: Diln Fac:	as received 1.000	Analyzed:	08/16/06		

Type: MS Lab ID: QC351935

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	1.018	102.0	32.85	31	1-126
Arsenic	2.556	51.02	47.13	87	74-120
Barium	107.2	102.0	201.3	92	53-134
Beryllium	0.2490	2.551	2.629	93	78-120
Cadmium	0.2220	10.20	9.216	88	71-120
Chromium	66.52	102.0	153.7	85	64-120
Cobalt	11.77	25.51	33.27	84	64-120
Copper	25.81	12.76	38.13	97	56-139
Lead	6.303	102.0	92.33	84	57-120
Molybdenum	0.4650	20.41	18.62	89	68-120
Nickel	79.19	25.51	98.73	77	48-132
Selenium	<0.06752	51.02	43.59	85	72-120
Silver	<0.03762	10.20	7.024	69	67-120
Thallium	<0.02653	51.02	43.60	85	69-120
Vanadium	60.48	25.51	82.78	87	55-134
Zinc	61.29	25.51	81.46	79	46-133

Type: MSD Lab ID: QC351936

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	108.7	38.86	35	1-126	11	21
Arsenic	54.35	54.85	96	74-120	9	20
Barium	108.7	220.2	104	53-134	6	20
Beryllium	2.717	2.955	100	78-120	6	20
Cadmium	10.87	10.74	97	71-120	9	20
Chromium	108.7	174.2	99	64-120	9	20
Cobalt	27.17	37.74	96	64-120	8	20
Copper	13.59	40.94	111	56-139	5	20
Lead	108.7	107.1	93	57-120	9	20
Molybdenum	21.74	21.70	98	68-120	9	20
Nickel	27.17	110.3	115	48-132	10	20
Selenium	54.35	51.22	94	72-120	10	20
Silver	10.87	8.161	75	67-120	9	20
Thallium	54.35	51.08	94	69-120	9	20
Vanadium	27.17	91.41	114	55-134	8	20
Zinc	27.17	90.75	108	46-133	9	20
ZIIIC	27.17	20.75	100	40 133		20



California Title 26 Metals					
Lab #:	188713	Location:	Georia-Pacific		
Client:	Blasland, Bouck & Lee	Prep:	METHOD		
Project#:	66049.009	Analysis:	EPA 7471A		
Analyte:	Mercury	Basis:	as received		
Type:	BLANK	Diln Fac:	1.000		
Lab ID:	QC352050	Batch#:	116450		
Matrix:	Soil	Prepared:	08/16/06		
Units:	mg/Kg	Analyzed:	08/16/06		

Result	RL	
ND	0.020	

.....



California Title 26 Metals						
Lab #:	188713	Location:	Georia-Pacific			
Client:	Blasland, Bouck & Lee	Prep:	METHOD			
Project#:	66049.009	Analysis:	EPA 7471A			
Analyte:	Mercury	Diln Fac:	1.000			
Matrix:	Soil	Batch#:	116450			
Units:	mg/Kg	Prepared:	08/16/06			
Basis:	as received	Analyzed:	08/16/06			

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC352051	0.5000	0.5220	104	80-120		
BSD	QC352052	0.5000	0.5260	105	80-120	1	20



California Title 26 Metals						
Lab #:	188713	Location:	Georia-Pacific			
Client:	Blasland, Bouck & Lee	Prep:	METHOD			
Project#:	66049.009	Analysis:	EPA 7471A			
Analyte:	Mercury	Diln Fac:	1.000			
Field ID:	ZZZZZZZZZ	Batch#:	116450			
MSS Lab ID:	188693-001	Sampled:	08/08/06			
Matrix:	Soil	Received:	08/11/06			
Units:	mg/Kg	Prepared:	08/16/06			
Basis:	as received	Analyzed:	08/16/06			

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC352053	<0.005985	0.4808	0.5135	107	54-154		
MSD	QC352054		0.4902	0.5216	106	54-154	0	28

Curt	Curtis & Tompkins, Ltd.	CHAIN OF CUSIODY	O Page of
Analy	Analytical Laboratory Since 1878 2323 Fifth Street Berkeley, CA 94710	71.6%	Analysis
_	(510) 486-0900 Phone (510) 486-0532 Fax	C&TLOGIN#:	57.51 dL( THd.
		Sampler: TRS+ S/EMMONS	Jew JLhi NSI L(
Project No.:	t No .: 66049.009	Report To: Judy Nedoff	120 120 08
Projec	Project Name: (200 rq19 - 19c1 Fic	Fic company: BBL	102
Project P.O.:		Telephone: 707-338-0708	72P.
Turnar	Turnaround Time: 5 business days	days Fax:	Desolution of the second
		Matrix a Preservative	1919 1920 1920 1920 1930 1930 1930 1930 1930 1930 1930 193
Lab No.	Sample ID.	Sampling Date Soil Water Water Water Containers	50d 12115 12115 1417 1721 1721 1721 1721
	1-A	11/0/6-06/00	X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-
74	0 FT 7 - C	2 0090-99/11	
12	RETI-D	\ X	X
5	RETT-COMP		
Notes:		SAMPLE RECEIPT RELINQUISHED BY:	RECEIVED BY:
Please	Please call it there are are and are and	1 8/11/06 DATE /	Mell 8
	7	Preservative Correct?	ME \$15 8 62 1230
		DATE / TIME	
	SIGNATURE		

SOP Volume:

Client Services

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Revision:

Effective Date: 10-May-99

1 Number 1 of 3

Filename:

 $F:\QC\Forms\QC\Cooler.wpd$ 



#### **COOLER RECEIPT CHECKLIST**

Login#	BBL Date Received: 8/12/06 Number of Coole Project: Georgia Pacific	ers:
	BRL Project: Georgia Pacific	
	0	
A.	Preliminary Examination Phase	
	Date Opened: 8/12/06 By (print): S. Stanley (sign)	243
1.	Did cooler come with a shipping slip (airbill, etc.)?	YES NO
	If YES, enter carrier name and airbill number: Fed Ex 79217773 &	184
2.	Were custody seals on outside of cooler?	YES(NO )
	How many and where? Seal date: Seal n	ame:
3.	Were custody seals unbroken and intact at the date and time of arrival	
4.	Were custody papers dry and intact when received?	
5.	Were custody papers filled out properly (ink, signed, etc.)?	
6.	Did you sign the custody papers in the appropriate place?	VES NO
7.	Was project identifiable from custody papers?	VÉS NO
	If YES, enter project name at the top of this form.	
8.	If required, was sufficient ice used? Samples should be 2-6 degrees C.	YES NO
	Type of ice: Wet Temperature: 6.0	
<b>T</b>	r t Di	
В.	Login Phase	-54
	Date Logged In: 8/14/06 By (print): S, Stanley (sign)	2000
1.	Describe type of packing in cooler: Bubble Wrapped under bay	gyed ice
2.		/( ======
3.	Were labels in good condition and complete (ID, date, time, signature,	etc.)?vES NO
4.	Did bottle labels agree with custody papers?	
5.	Were appropriate containers used for the tests indicated?	WES NO NA
6.	Were correct preservatives added to samples?	WEG NO
7.	Was sufficient amount of sample sent for tests indicated?	WEG NO-MA
8.	Were bubbles absent in VOA samples? If NO, list sample Ids below	WES NO
9.	Was the client contacted concerning this sample delivery?	YES NO
	If YES, give details below.	Detec
	Who was called? By whom?	Date:
Additi	onal Comments:	
, iduiti	onal Comments.	
Filename	:: F:\qc\forms\qc\cooler.doc	Rev. 1, 4/95